

# ATTORNEY'S DOCKET NUMBER: 0342941-0104 (Myers 1747-00)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Myers et al.

Examiner

Serial No.:

10/826,859

Art Unit

1614

Filing Date:

April 16, 2004

Title:

Saframycins, Analogues and Uses Thereof

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### TRANSMITTAL LETTER

Enclosed are the following documents:

- 1. Statement Under 37 CFR §§ 1.56, 1.57, & 1.98 (6 pages);
- 2. Form PTO-1449 (6 pages);
- 3. Cited Art (38); and
- 4. Return Postcard

If any additional fees are required to be paid or if any overpayment has been made, please charge same to Deposit Account No. 03-1721.

Respectfully submitted,

C. Hunter Baker, M.D., Ph.D.

Registration. No. 46,533

Choate, Hall & Stewart Exchange Place 53 State Street Boston, MA 02109 (617) 248-5000 (617) 248-4000

Dated:

8/10/2004

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents,

P.O. Box 1450, Alexandria, VA 22313

Sandy Sacrocia



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## **STATEMENT UNDER 35 CFR §§ 1.56, 1.97, & 1.98**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant requests consideration of this Information Disclosure Statement.

## Type of Statement

The present Information Disclosure Statement is:

[X] An original Information Disclosure Statement; or

[ ] A supplemental Information Disclosure Statement.

Certificate of Mailing

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Date

Signature

Sandra Saccocia

Typed or Printed Name of person signing certificate

# Compliance with 37 CFR § 1.97

The present Information Disclosure Statement is being filed:

[X]	Pursu	ant to 3	7 CFR § 1.97(b); no fee or certification is required:
	[]	Withi	n three months of the filing date of a national application other than
		a cont	tinued prosecution application under § 1.53(d);
	[]	Withi	n three months of the date of entry of the national stage as set forth
		in <b>§ 1</b> .	.491 in an international application;
	[X]	Befor	e the mailing of a first Office action on the merits; or
	[]	Before	e the mailing of a first Office action after the filing of a request for
		contin	nued examination under § 1.114.
[]	Pursu	ant to 3	7 CFR § 1.97(c) after the dates listed above but before the mailing
	date o	f any of	f a final action under § 1.113, a notice of allowance under § 1.311, or
	an act	ion that	otherwise closes prosecution in the application; Applicant hereby
	either	•	
	[]	Certif	ies that either:
		[]	each item of information contained in the information disclosure
			statement was first cited in any communication from a foreign
			patent office in a counterpart foreign application not more than
			three months prior to the filing of the information disclosure
			statement; or
		[]	That no item of information contained in the information
			disclosure statement was cited in a communication from a foreign
			patent office in a counterpart foreign application, and, to the
			D 0.56

knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.; or

			the information disclosure statement.; or
	[]	Includ	les herewith the fee set forth in § 1.17(p).
]	Pursu	ant to 37	7 CFR § 1.97(d), after the mailing date of any final action under
	§ 1.11	<b>3</b> , a noti	ice of allowance under § 1.311, or an action that otherwise closes
	prosec	cution in	the application; Applicant hereby both:
	[]	Certifi	ies that either:
		[]	each item of information contained in the information disclosure
			statement was first cited in any communication from a foreign
			patent office in a counterpart foreign application not more than
			three months prior to the filing of the information disclosure
			statement; or
		[]	That no item of information contained in the information
			disclosure statement was cited in a communication from a foreign
			patent office in a counterpart foreign application, and, to the
			knowledge of the person signing the certification after making
			reasonable inquiry, no item of information contained in the
			information disclosure statement was known to any individual
			designated in § 1.56(c) more than three months prior to the filing of
			the information disclosure statement.; and

[	] Includes	herewith the	fee set	forth in	§ 1.17(p).
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#### Content of the Information Disclosure Statement

Applicant hereby makes of record in the above-identified application the reference(s) listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

Applicant includes copies of references as indicated below:

- [ ] A copy of each cited reference not indicated with an asterisk is included;
- [X] Copies of references indicated with an asterisk on the attached form PTO-1449 are not included pursuant to 37 CFR § 1.98(d) because they were previously provided to the United States Patent Office in an Information Disclosure Statement that complies with 37 CFR § 1.98(a)-(c) and was submitted in the following patent application that is relied upon in the present case for an earlier effective filing date under 35 USC § 120:

Serial Number	Filing Date	Status
10/011,466	November 5, 2001	Pending

[ ] Copies of English translations of one or more non-English references are included.

Applicant hereby makes the following additional information of record in the aboveidentified application:

Applicant certifies that the Information Disclosure Statement either:

- Does not contain non-English language citations;
- Does contain non-English language citations, of which the following is a concise

explanation:

[ ] Includes one or more translations of a non-English citation.

#### Remarks

The submission of this Information Disclosure Statement should not be construed as a representation that a search has been made.

The submission of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56(b).

The submission of this Information Disclosure Statement shall not be construed as a representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

It is respectfully requested that:

- 1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
- 2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited patent(s) and publication(s) has (have) been fully considered by the Patent and Trademark Office during the examination of this application; and
- 3. The citations for the patent(s) and publication(s) be printed on any patent which issues from this application.

Notwithstanding any statements by Applicants, the Examiner is urged to form his or her own conclusions regarding the relevance of the cited reference(s).

Respectfully submitted,

C. Hunter Baker, M.D., Ph.D. Registration Number: 46,533

CHOATE, HALL & STEWART Exchange Place 53 State Street Boston, Massachusetts 02109 (617) 248-5000 (617) 248-4000

Dated: 8/10/2004

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Form PTO-144 (REV. 8-83)	AU6 1 2 2004 Patent	epartment of Commerce and Trademark Office	Atty. Docket: In re Application N 0342941-0104 10/826,859 (Myers 1747-00)			
\7	ON DISCLOSTRE STA		Applicant: Myers et al.			
(Use se	and sheets necessary)		Filing Date: Grou April 16, 2004		p: 1614	
U.S. PATENT	DOCUMENTS					
Examiner's Initials	U.S. Patent No.	Applicant	Issue Date	Class	Subclass	
	*6,569,859	Corey	May 27, 2003	514	250	
	*6,348,467	Corey	February 19, 2002	514	250	
<del> `</del>	*6,316,214	Rinchart et al.	November 13, 2001	435	25	
	6,258,539	Hunkapiller et al.	July 10, 2001	435	6	
	*6,124,293	Rinchart et al.	September 26, 2000	514	250	
And Security and	*6,124,292	Corey	September 26, 2000	514	250	
	5,939,273	Lussow et al.	August 17, 1999	435	7.1	
100 - 0	5,786,461	Buchardt et al.	July 28, 1998	536	18.7	
· · · · · · · · · · · · · · · · · · ·	*5,834,228	Becker et al.	November 10, 1998	435	23	
	5,773,571	Nielsen et al.	June 30, 1998	530	300	
	*5,721,362	Corey et al.	February 24, 1998	540	466	
	5,652,355	Metelev et al.	July 29, 1997	536	24.5	
No. of Contract of	5,646,260	Letsinger et al.	July 8, 1997	536	23.1	
ta Maria	5,580,969	Hoke et al.	December 3, 1996	536	24.5	
, dig***	5,539,082	Nielsen et al.	July 23, 1996	530	300	
<u> </u>	5,476,925	Letsinger et al.	December 19, 1995	536	23.1	
	5,278,302	Caruthers et al.	January 11, 1994	536	24.5	
	5,153,319	Caruthers et al.	October 6, 1992	536	27	
	*5,023,184	Reichenbach et al.	June 11, 1991	435	252.1	
	4,973,679	Caruthers et al.	November 27, 1990	536	27	
	*4,837,149	Arai et al.	June 6, 1989	435	119	
	4,668,777	Caruthers et al.	May 26, 1987	536	27	
	4,500,707	Caruthers et al.	February 19, 1985	536	27	
	4,458,066	Caruthers et al.	July 3, 1984	536	27	
	4,419,732	Lambregts et al.	December 6, 1983	364	428	
	*4,372,947	Arai et al.	February 8, 1983	424	121	
	*4,248,863	Arai	February 3, 1981	424	121	

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	*Eisen, et al., "Binding of the Influenza A Virus to Cell-Surface Receptors: Structures of Five Hemagglutinin-Sialyloligosaccharide Complexes Determined by X-Ray Crystallography", <i>Virology</i> , <b>232</b> :19-31, 1997.
	*Ekambareswara, et al., "DNA Sequence Selectivities in the Covalent Bonding of Antibiotic Saframycins Mx1, Mx3, A, and S Deduced from MPE-Fe(II) Footprinting and Exonuclease III Stop Assays", <i>Biochemistry</i> , 31: 12076-12082, 1992.
	*Ekambareswara, et al., "Mode of Action of Saframycin Antitumor Antibiotics: Sequence Selectivities in the Covalent Binding of Saframycins A and S to Deoxyribonucleic Acid", <i>Chem. Res. Toxicol.</i> 3:262-267, 1990.
	*Evans, et al., "Stereoselective Synthesis of (±)-Cyanocycline", J. Am. Chem. Soc. 108: 2478-2479, 1986.
	*Flanagan, et al., "Synthetic Studies on Quinocarcin: Total Synthesis of (±)-Quinocarcinamide Via Dipole Cycloaddition of an Azomethine Ylide Generated by NBS Oxidation", J. Org. Chem. 60: 6791-6797, 1995.
	*Fukuyama, et al., "Total Synthesis of (±)-Saframycin A", J. Am. Chem. Soc. 112: 3712-3713, 1990.
	*Fukuyama, et al., "Stereocontrolled Total Sunthesis of (±)-Saframycin B", J. Am. Chem. Soc., 104: 4957-4958, 1982.
	*Fukuyama, et al., A Stereocontrolled Total Synthesis of (±)-Renieramycin A", <i>Tetrahedron Letters</i> , 31(42): 5989-5992, 1990.
	*Ha, et al., X-Ray Structures of H5 Avian and H9 Swine Influenza Virus Hemagglutinins Bound to Avian and Human Receptor Analogs", PNAS, 98(20): 11181-11186, 2001.
	Hill, et al., "Computer Simulation of the Binding of Saframycin A to d(GATGCATC)", J. Med. Chem. 34: 1990-1998, 1991.
	*Hoffman, et al., "Structure-Based Identification of an Inducer of the Low-pH Conformational Change in the Influenza Virus Hemagglutinin: Irreversible Inhibition of Infectivity", <i>Journal of Virology</i> , 71(11): 8808-8820, 1997.
	*Ishiguro, et al., "Binding of Saframycin A, a Heterocyclic Quinone Anti-Tumor Antibiotic to DNA as Revealed by the Use of the Antibiotic Labeled with [14C]Tyrosine or [14C]Cyanide", <i>The Journal of Biological Chemistry</i> , <b>256</b> (5): 2162-2167, 1981.
	*Ishiguro, et al., "Mode of Action of Saframycin A, A Novel Heterocyclic Quinone Antibiotic. Inhibition of RNA Synthesis in Vivo and In Vitro", <i>Biochemistry</i> , 17(13): 2545-2550, 1978.
	Jimeno, et al., "Progress in the Acquisition of New Marine-Derived Anticancer Compounds: Development of Ecteinascidin-743 (ET-743), <i>Drugs Future</i> , 21: 1155-1165, 1996.
	*Kaneda, et al., "Antitumor Activity of New Semisynthetic Saframycin Derivatives", <i>Jpn. J. Cancer Res. (Gann)</i> , 77: 1043-1049, 1986.
	Kaneda, et al., "Biological Activities of Newly Prepared Saframycins", <i>The Journal of Antibiotics</i> , XL(11): 1640-1643, 1987.
	*Kishi, et al., "Structure-Activity Relationships of Saframycins", <i>The Journal of Antibiotics</i> , <b>XXXVII</b> (8): 847-852, 1984.

*Kubu, et al., "A Synthesis of the Derivatives of 1,2,3,5,10,10a-Hexahydrobenz[f]Indolizine-6,9-Dione Having Antifungal Activity as a Simple Model of Saframycin A", Heterocycles, 42(1): 195-211, 1996.
*Kubo, et al., "Stereoselective Total Synthesis of (±)-Saframycin B", J. Org. Chem. 53: 4295-4310, 1988.
Kubo, et al., "Synthesis of Saframycins. I. Total Synthesis of (±) – Saframycin B and its Congeners", Chem. Pharm. Bull. 35(5): 2158-2161, 1987.
*Kurihara, et al., "Studies Directed Towards Total Synthesis of Saframycin: I. A Synthesis of Hexahydro-1,5-Imino-3-Benzazocin-7,10-Dione", <i>Tetrahedron Letters</i> , 23(35): 3639-3640, 1982.
*Lown, et al., "Molecular Mechanisms of Binding and Single-Strand Scission of Deoxyribonucleic Acid by the Antitumor Antibiotics Saframycins A and C", <i>Biochemistry</i> , <b>21</b> (3): 419-428, 1982.
*Luo, et al., "Molecular Mechanism Underlying the Action of a Novel Fusion Inhibitor of Influenza A Virus", <i>Journal of Virology</i> , <b>71</b> (5): 4062-4070, 1997.
*Martinez, et al., "Enantioselective Synthesis of Saframycin A and Evaluation of Antitumor Activity Relative to Ecteinascidin/Saframycin Hybrids", Organic Letters, 1(1): 75-77, 1999.
*Martinez, et al., "Phthalascidin, A Synthetic Antitumor Agent with Potency and Mode of Action Comparable to Ecteinascidin 743", <i>Proc. Natl. Acad Sci. USA</i> , 96: 3496-3501, 1999.
Martinez, et al., "A New, More Efficient, and Effective Process for Synthesis of a Key Pentacyclic Intermediate for Production of Ecteinascidin and Phthalascidin Antitumor Agents", Organic Letters, 2(7): 993-996, 2000.
*Matrosovich, et al., "The Surface Glycoproteins of H5 Influenza Viruses Isolated from Humans, Chickens, and Wild Aquatic Birds Have Distinguishable Properties", <i>Journal of Virology</i> , <b>73</b> (2): 1146-1155, 1999.
*Mikami, et al., "Biosynthetic Studies on Saframycin A, A Quinone Antitumor Antibiotic Produced by Streptomyces Lavendulae", <i>The Journal of Biological Chemistry</i> , <b>260</b> (1): 344-348, 1985.
Mikami, et al., "Blue Pigmentation of Mycelia and the Synthesis of Saframycins by Streptomyces Lavendulae", Sixth Int. Symp. on Actinomyostee Biology, 297-299, 1985.
*Myers, et al., "A Concise, Stereocontrolled Snythesis of (-) - Saframycin A by the Directed Condensation of α-Amino Aldehyde Precursors", <i>Journal of the American Chemical Society</i> , <b>121</b> (46): 10828-10829, 1999.
*Myers, et al., "Synthesis and Evaluation of Bishydroquinone Derivatives of (-) - Saframycin A: Identification of a Versatile Molecular Template Imparting Potent Antiproliferative Activity", <i>J. Am. Chem. Soc.</i> 123:5114-5115, 2001.
*Myers, et al., "Synthesis of Highly Epimerizable N-Protected α-Amino Aldehydes of High Enantiomeric Excess", <i>Tetrahedron Letters</i> , <b>41</b> : 1359-1362, 2000.
*Myers, et al., "Greatly Simplified Procedures for the Synthesis of α-Amino Acids by the Direct Alkylation of Pseudoephedrine Glycinamide Hydrate", <i>J. Org. Chem.</i> 64: 3322-3327, 1999.
*Myers, et al., "One-Step Construction of the Pentacyclic Skeleton of Saframycin A from a "Trimer" of a α-Amino Aldehydes", <i>Organic Letters</i> , <b>2</b> (19): 3019-3022, 2000.

<del>, </del>	,
	*Myers, et al., "Preparation of Chiral, C-Protected α-Amino Aldehydes of High Optical Purity and Their Use as Condensation Components in a Linear Synthesis Strategy", <i>J. Am Chem. Soc.</i> 121:8401-8402, 1999.
_	*Myers, et al., "Synthesis of C-Protected α-Amino Aldehydes of High Enantiomeric Excess from Highly Epimerizable N-Protected α-Amino Aldehydes", <i>Organic Letters</i> , <b>2</b> (21): 3337-3340, 2000.
	*Myers, et al., "Asymmetric Synthesis of Chiral Organofluorine Compounds: Use of Nonracemic Fluoroiodoacetic Acid as a Practical Electrophile and Its Application to the Synthesis of Monofluoro Hydroxyethylene Dipeptide Isosteres within a Novel Series of HIV ProteaseInhibitors", Journal of the American Chemical Society, 123(30): 7207-7219, 2001.
	*Nobusawa, et al., "Comparison of Complete Amino Acid Sequences and Receptor-Binding Properties Among 13 Serotypes of Hemagglutinins of Influenza A Viruses", <i>Virology</i> , <b>182</b> : 475-485, 1991.
	*Parker, et al., "Approaches to the Isoquinoline Quinone Antibiotics. 1. Additions of an Amino Acid Derivative to Quinone Monoacetal", <i>Tetrahedron Letters</i> , <b>25</b> (33): 3543-3546, 1984.
	*Parker, et al., "Isoquinoline Quinones. Preparation of Aframycin Intermediates and a Total Synthesis of Mimosamycin", <i>J. Org. Chem.</i> <b>53</b> :2847-2850, 1988.
	Plowright, "Synthesis and Evaluation of Bishydroquinone Derivatives of (-) – Saframycin A: Identification of a Versatile Molecular Template Imparting Potent Antiproliferative Activity" <i>J. Am. Chem. Soc.</i> 123: 5114-5115, 2001.
	*Podhorez, David., "Stepwise Approach to the 2,3-Dihydroimidazo[1,2-a]Pyridine and 5-Oxo-1,2,3,5-Tetrahydroimidazo[1,2-a] Pyridine Ring Systems", <i>J. Heterocyclic Chem.</i> <b>28</b> : 971, 1991.
	*Pospiech, et al., "Two Multifunctional Peptide Synthetases and an O-Methyltransferase are Involved in the Biosynthesis of the DNA-Binding Antibiotic and Antitumour Agent Saframycin Mx1 from Myxococcus Xanthus", <i>Microbiology</i> , <b>142</b> : 741-746, 1996.
	*Pospiech, et al., "A New Myxococcus Xanthus Gene Cluster for the Biosynthesis of the Antibiotic Saframycin Mx1 Encoding a Peptide Synthetase", <i>Microbiology</i> , <b>141</b> :1793-1803, 1995.
	Rao, et al., "Mode of Action of Saframycin Antitumor Antibiotics: Sequence Selectivities in the Covalent Binding of Saframycins A and S to Deoxyribonucleic Acid" <i>Chem. Res. Toxicol.</i> 3: 262-267, 1990.
	Rao, et al., "DNA Sequence Selectivities in the Covalent Bonding of Antibiotic Saframycins Mx1, Mx3, A, and S Deduced from MPE-Fe(II) Footprinting and Exonuclease III Stop Assays", Biochemistry, 31: 12076-12082, 1992.
	Reiners, W., "Saframycins, Renieramycins, and Safracins", <i>The Chemistry of Ant. Antibiotics</i> , 2: 93-119, 1988.
	Rinehart, et al., "Bioactive Compounds From Aquatic and Terrestrial Sources" <i>Journal of Natural Products</i> , <b>53</b> : 771-792, 1990.
	*Rosenthal, et al., "Structure of the Haemagglutinin-Esterase-Fusion Glycoprotein of Influenza C Virus", <i>Nature</i> , <b>396</b> :92-96, 1998.
	*Saito, et al., "Synthesis of Saframycins VIII. 1. Synthesis of the ABC Ring of Safracins", <i>Chem, Pharm. Bull.</i> 40(10): 2620-2626, 1992.
	*Saito, et al., "Synthesis of Saframycins. 3. Preparation of a Key Tricyclic Lactam Intermediate to Saframycin A", J. Org. Chem., 54: 5391-5395, 1989.

	*Saito, et al., "Synthesis of Saframycins, VII. The Synthesis of Novel Renieramycin Congeners", Heterocycles, 32(6):1203-1214, 1991
	*Saito, et al., "Synthesis of Saframycins. XII. 1 Total Synthesis of (-)-N-Acetylsaframycin Mx 2 and It epi-(+)-Enantiomer", <i>Tetrahedron</i> , 51(30): 8231-8246, 1995.
	*Saito, et al., "Synthesis of Saframycins. X. 1) Transformation of (-) Saframycin A to (-)- Saframycin Mx Type Compound with the Structure Proposed for Saframycin E", Chem. Pharm. Bull. 43(5): 777-782, 1995.
	*Saito, et al., "Synthesis of Saframycins. V. Selenium Oxide Oxidation of Hexahydro-1,5-Imino-3-Benzazocin-7, 10-Dione; A Useful Method for Constructing Saframycins C and D From Saframycin B", <i>Tetrahedron</i> , 46(23): 7711-7728, 1990.
	Saito, et al., "Synthesis of Saframycins. XI. Synthetic Studies toward a Total Synthesis of Safracin A", <i>Tetrahedron</i> , 51(30): 8213-8230, 1995.
	Saito, et al., "Synthesis of Saframycins. VI. The Useful Transformation of (-)-Saframycin A To (-)-Saframycin Mx Type Compound)", Chem. Pharm. Bull. 39(5): 1343-1345, 1991.
	Sakai, et al., "Additional Antitumor Ecteinascidins from a Caribbean Tunicate: Crystal Structures and Activities in vivo" Proc. Natl. Acad. Sci. USA, 89: 11456-11460, 1992.
	*Sauter, et al., "Binding of Influenza Virus Hemagglutinin to Analogs of Its Cell-Surface Receptor, Sialic Acid: Analysis by Proton Nuclear Magnetic Resonance Spectroscopy and X-Ray Crystallography", <i>Biochemistry</i> , 31: 9609-9621, 1992.
	*Staschke, et al., "Inhibition of Influenza Virus Hemagglutinin-Mediated Membrane Fusion by a Compound Related to Podocarpic Acid" <i>Virology</i> , <b>248</b> :264-274, 1998.
	*Shawe, et al., "Saframycin Synthetic Studies", Tetrahedron, 47(30): 5643-5666, 1991.
	Taamma, et al., "Phase I and Pharmacokinetic Study of Ecteinascidin-743, A New Marine Compound, Administered as a 24-Hour Continuous Infusion in Patients with Solid Tumors", <i>Journal of Clinical Oncology</i> , 19(5): 1256-1265, 2001.
	*Webster, et al., "Evolution and Ecology of Influenza A Viruses", <i>Microbiological Reviews</i> , <b>56</b> (1): 152-179, 1992.
	*Weis, et al., "Structure of the Influenza Virus Haemagglutinin Complexed with its Receptor, Sialic Acid", <i>Nature</i> , 333(2): 426-431, 1988.
	*Winquist, et al., "Neuraminidase Inhibitors for Treatment of Influenza A and B Infections", MMWR Morbidity and Mortality Weekly Report/Recommendations and Reports, 48(RR14): 1-11, 1999.
	Yazawa, et al., "Isolation and Structural Elucidation of New Saframycins Y3, Yd-1, Yd-2, Ad-1, Y2b and Y2b-d", <i>The Journal of Antibiotics</i> , XXXIX(12): 1639-1650, 1986.
	*Zhou, et al., "A Novel Face Specific Mannich Closure Providing Access to the Saframycin- Ecteinascidin Series of Piperazine Based Alkaloids", <i>Tetrahedron Letters</i> , 41:2043-2046, 2000.
	*Zhou, et al., "Synthetic Explorations in the Saframycin-Ecteinascidin Series: Construction of Major Chiral Subunits Through Catalytic Asymmetric Induction", <i>Tetrahedron Letters</i> , <b>41</b> :2039-2042, 2000.
-	International Search Report issued for corresponding PCT application PCT/US01/47399.

#### **EXAMINER**

# DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

3711991

Examiner's	Publication	Applicant:	Publication Date:	Group:	Art Unit:		
Initials:	Number:						
	US2003/0083495	Corey	May 1, 2003				
FOREIGN PA	TENT DOCUMENTS						
Examiner's	Document No.	Country	Date	Translation			
Initials				Yes	No		
	*DE 28 39 668	Germany					
	*EP 0 329 606	Europe	03 February 1989				
	*EP 0 233841	Europe	12 December 1987				
	*EP 0 173 649	Europe	26 August 1985				
	*ЛР 63-2991	Japan	07 January 1988				
	*Љ 61-58593	Japan	25 March 1986				
	*JP 57-50896	Japan	25 March 1982				
	*JP 56-135486	Japan	22 October 1981	-			
	*WO 01/87895	International	22 November 2001		-		
	*WO 01/87894	International	22 November 2001				
	*WO 01/53299	International	26 July 2001				
	*WO 01/19824	International	22 March 2001				
	*WO 00/69862	International	23 November 2000				
	*WO 00/18233	International	06 April 2000				
	*WO 98/12198	International	26 March 1998				
OTHER DOC	UMENTS	<u> </u>		<u> </u>	•		
Examiner's Initials	Citation (Including	Author, Title, Date, Per	tinent Pages, Etc.)				
	*Arai, et al., "Increased Production of Saframycin A and Isolation of Saframycin S", <i>The Journal of Antibiotics</i> , XXXIII(9): 951-960, 1980.						
	*Arai, Directed Biosynthesis of New Saframycin Derivatives with Resting Cells of Lavendulae", Antimicrobial Agents and Chemotherapy, 28(1): 5-11, 1985.						
	Arai, T., "Isoquinolinequinones from Actinomycetes and Sponges", The Alkaloids, XXI: 56-100, 1983						
	Arai, et al, "Biological Activity of Saframycins with Special Reference to Action Mechanism", pg. 89-95.						
	Arai, et al., "The Structure of a Novel Antitumor Antibiotic, Saframycin A", Experientia, 36: 1025-1027, 1980.						
	Arai, et al., "Some Chemotherapeutic Properties of Two New Antitumor Antibiotics, Saframycins A and C", Gann, 71: 790-796, 1980.						
	Arai, et al., In Advances in Cancer Chemotherapy; University Park Press, Baltimore, 235-251, 1978.						
	Arai, et al., "New Antibiotics Saframycins A, B, C, D and E", <i>The Journal of Antibiotics</i> , 30: 1015-1018, 1977.						
		*Bodian, et al., "Inhibition of the Fusion-Inducing Conformational Change of Influenza Hemagglutinir by Benzoquinones and Hydroquinones", <i>Biochemistry</i> , 32: 2967-2978, 1993.					
	*Davidson, B., "Renieramycin G, A New Alkaloid from the Sponge Xestospongia Caycedoi", Tetrahedron Letters, 33(26): 3721-3724, 1992.						